# . Work Order ID 47002B01

Friday, June 26, 2009 10:46:23 AM



Page 1

Item ID:

D3186-2M

Accept

Setup Start

Stop

**Revision ID:** D

Required Date: 8/3/2009

Item Name:

SPACEPOD DOOR RH

**Start Date:** 

7/15/2009

Start Qty: 1.00

Req'd Qty: 1.00



**Cust Item ID:** 

**Customer:** 

Reference:

**Approvals:** 

Process Plan:

Date: Tooling:

SPC (Y/N):

0.00

Date:

Date:

Start Run



Stop

Sequence ID/ Work Center ID

**Operation** Description

**Revision Nbr** 

Date: \_\_\_\_\_

Set Up/ **Run Hours**  Draw Number Draw Rev.

Plan

Code

Accept **Qty** 

Reject Reject Number **Qty** 

(2/2/17 ()

Insp. Stamp

D3186

Rev D

100

**Draw Nbr** 

Purchasing

Purchasing

**PURCHASING** 

Memo

□ Description:D3186-2MDoor © Supplier:

Delastek ☐ Conformity Certificate and Process sheet required ☐ Ship 3 Items from

Previous steps

110

Packaging

Packaging

Receive & Inspect for Damage & Mat'l Certs

0.00

0.00

Memo

Ensure a copy of certification of conformity and process sheet from Delastek is

attached.

120

Quality Control

QC6- Inspect dimensions to drawing

Memo

=> Sorlar/30

Check for void spot and pins.

# . Work Order ID 47002B01

Friday, June 26, 2009 10:46:23 AM



Page 2

Item ID:

D3186-2M

Accept

Setup Start

**Revision ID: Item Name:** 

D

SPACEPOD DOOR RH

Stop

**Start Date:** 

7/15/2009

Start Qty: 1.00 Req'd Qty: 1.00

**Cust Item ID:** 

**Customer:** 

Draw

Number

Reference:

Approvals:

Required Date: 8/3/2009

Process Plan:

Date: \_\_\_\_\_ Tooling: Date:

Run Start



QC:

Date: SPC (Y/N):

Date:

Stop

Sequence ID/ Work Center ID

130

Packaging

Operation Description

Identify as per dwg & Stock Location:

Set Up/ **Run Hours** 

0.00

Draw Rev.

Plan Code

Accept Qty

Reject

Reject Number Stamp

Insp.

Packaging

Memo

Memo

0.00

Qty

140

QC

Quality Control

QC21- Final Inspection - Work Order Release

0.00

0.00

09/09/08/S) Bl 09-9-04

**Picklist Print** 

' Friday, June 26, 2009 10:46:23 AM

Work Order ID: 47002B01

Parent Item:

D3186-2MRevD

Parent Item Name: SPACEPOD DOOR RH

Comments:



Start Date: 7/15/2009

Required Date: 8/3/2009

Page 1

Start Qty: 1.00

Required Qty: 1.00

Component Item ID/	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Remaining Qty To Pick	Qty Issued	Date Issued	Status
D3186-2PRevD		Purchased	No			100	Each	0.0000	1.0000			

Spacepod Door

Qty:

1 Um:

Each

: SPACEPOD DOOR RH

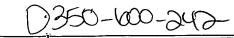
: D31862M

: 10/05/2009

: N/A

: D

: D3186 REV.D



Qate: User:

Julie Dawson

## **Process Sheet**

**Drawing Name** 

Part Number

Material

**Due Date** 

**Drawing Number** 

**Project Number** 

**Drawing Revision** 

Customer

: CU-DAR001 Dart Helicopters Services

S.O. No. :

Job Number

: 47002B01

**Estimate Number** 

: 12599

P.O. Number

This Issue

: 07/04/2009 : NC Prsht Rev.

First Issue **Previous Run** 

: 46180B01

: //

Type : SMALL /MED FAB

Written By

Checked & Approved By Comment

: Est Rev:A

New Issue

est rev B rev D dwa

06-12-04 07.03.07

**Additional Product** 

Job Number:

Seq. #:

**Machine Or Operation:** 

Description:

1.0

PG

PURCHASING

C20964/08

Comment: PURCHASING

Issue P/O:

D3186-2M Door

Description:

Supplier: Delastek

Conformity Certificate and Process sheet required

Ship 3 Items from Previous steps

D31862P 2.0

Spacepod Door

1.0000 Each(s)/Unit

Total:

1.0000 Each(s)

Spacepod Door

Comment: Qty.:

PACKAGING RESOURCE #1





Comment: PACKAGING RESOURCE #1

Receive and inspect for transit damage. Ensure a copy of certification of conformity and process sheet from

Delastek is attached.

DIMENSIONAL CHECK



Comment: DIMENSIONAL CHECK

Inspect dimensions as per Dwg D3186 . Visual inspection. Check for void spot and pins.

PACKAGING RESOURCE #1

PACKAGING 1

Comment: PACKAGING RESOURCE #1

Identify and Stock

Location:

# **Dart Aerospace Ltd**

W/O: WO		WORK ORDER O	WORK ORDER CHANGES							
DATE	STEP	PROCEI	DURE CHANGE	Ву	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector		
Part No	) <b>:</b>	PAR #:	Fault Category:	NCR: Yes	No DO	Δ-	Date:			

Part No:		PAR #:	Fault Category:	NCR: Yes No DQA:	Date:
	Resolution:		Disposition:	QA: N/C Closed:	Date:

WORK ORDER NON-CONFORMANCE (NCR)							
0	Description of NC		Corrective Action Section B	Varification	A		
SIEP	Section A	Initial Chief Eng	Action Description Chief Eng	Sign & Date	Section C	Chief Eng	Approval QC Inspecto
							,
				ŀ			
	STEP	STEP Description of NC	STEP Description of NC Section A Initial	STEP Description of NC Section A Initial Action Description	STEP Description of NC Section A Initial Action Description Sign &	STEP Section A Initial Action Description Sign & Verification Section C	STEP Description of NC Section A Initial Action Description Sign & Section C Chief Eng

NOTE: Date & initial all entries

Date: Tuesday, 07/04/2009 10:28:27 AM
User: Julie Dawson
Customer: CU-DAR001 Dart Helicopters Services

**Process Sheet** 

Drawing Name: SPACEPOD DOOR RH

Job Number: 47002B01

Part Number: D31862M

Job Number:



Seq. #:

Machine Or Operation:

Description:

6.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

Job Completion



# **Dart Aerospace Ltd**

W/O:			WC	RK ORDER CHANGE	S				
DATE	STEP	PRO	PROCEDURE CHANGE				Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector
Part No	:	PAR #:	Fault Cate	Jory:	NCR: Yes	No <b>DQ</b>	<b>4</b> :	Date: _	
	Re	esolution:	Disposition	):	QA: N/C Clo	sed:		Date: _	
NCR:			WORK ORDE	R NON-CONFORMAN	ICE (NCR	)		**	
DATE	STEP	Description of NC Section A	Initial Chief Eng	Corrective Action Section  Action Description  Chief Eng	B Sign & Date	Verific Section		Approval Chief Eng	Approval QC Inspector
			Office Ling	Office Eng	Date				

NOTE: Date & initial all entries



DESIG		DRAWN BY	DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	)
CHEC	Œ	APPROVED _	DRAWING NO.	REV. D
	_ k	#	D3186 SHEET	T 1 OF 5
DATE	-		TITLE	SCALE
07.0	2.22		SPACEPOD DOOR	NTS
Α		03.03.27	NEW ISSUE	
В		06.09.25	DIMS UPDATED TO MATCH PRODUCT FOAM PATTERN UPDATED D3186-1M/-2M/-3/-4 ADDED	
С		06.12.13	REMOVED DO600-XXX LABELS	
Q		07.02.22	UPDATE DIMENSIONS	

MAIN LAYUP

9 OZ SATIN (9 SQ FEET) 9 OZ SATIN (9 SQ FEET)

FOAM

9 OZ SATIN (9 SQ FEET)

12 OZ UNIDIRECTIONAL 9 OZ SATIN (9 SQ FEET)

RESIN (35-45% BY WEIGHT)
PEEL PLY

12 OZ UNIDIRECTIONAL

4.5" WIDE ALONG OUTSIDE EDGE

07.02.27 20.2-ROUTER FOAM TO ROUTER PATTERN D3186-1T1 REFER TO DETAIL 'A' (P/N D3186-101) FOR SHAPE (3 PLACES) REFER TO DETAIL 'B' 12.4 FOR SHAPE (4 PLACES) 15 5.5 3.4 1.0 (TYP)-

NOTES:

1) USE MOLD DT8005 FOR DOOR LAYUP

2) RESIN: EPOCAST 50-A/9816 OR DERAKANE 470-36/411/510A40

3) FOAM: 3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECELL

4) FIBRE: 9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")

SHOP COPY

RETURN TO

12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")

ENC'NET RING

RELEASED

5) LAMINATE PER DART QSI 006 4.0

UNCONTROLLED COPY

6) LAMINATION SCHEDULE PER THIS DRAWING
7) FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S

SUBJECT FO A JENEMENT

T) ALL DIMENCIONS ARE IN MOUTE

Walders, Outla

8) ALL DIMENSIONS ARE IN INCHES

9) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

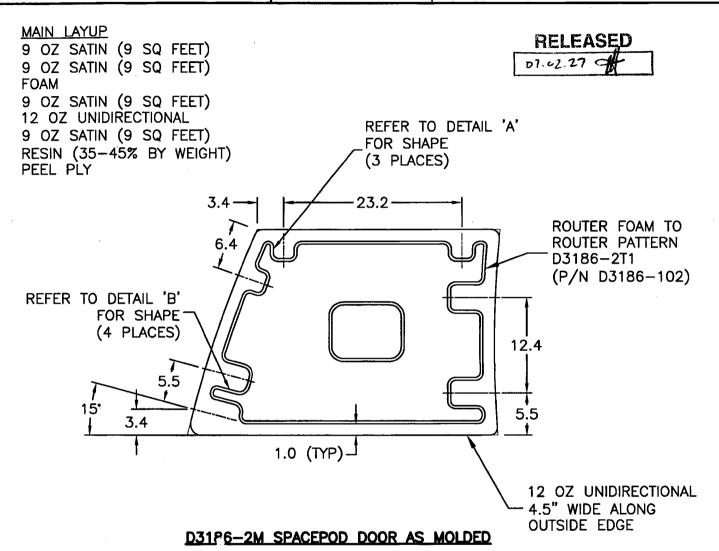
Copyright © 2003 by DART AEROSPACE LTD

D3186-1M SPACEPOD DOOR AS MOLDED

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



DESIGN DS	DRAWN BY		RT AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
CHECKED	APPROVED J	DRAWING NO.		REV. D
_4	3	D3186	SHEET	2 OF 5
DATE		TITLE		SCALE
07.02.22		SPACEPOD	DOOR	NTS



### **NOTES:**

1) USE MOLD DT8006 FOR DOOR LAYUP

2) RESIN: EPOCAST 50-A/9816 OR DERAKANE 470-36/411/510A40

3/8", A500 CORE-CELL OR DIVINYCELL OR AIREX OR KLEGECELL 3) FOAM:

9.7 OZ 7781 WEAVE "S" GLASS ("9 OZ SATIN")

12 OZ UNIDIRECTIONAL FIBERGLASS ("12 OZ UNIDIRECTIONAL")

SHOP COPY RETURN TO

ENCINETRING

5) LAMINATE PER DART QSI 006 4.0

6) LAMINATION SCHEDULE PER THIS DRAWING

UNCONTROLLED COPY

7) FINISH INSIDE/OUTSIDE WITH DUPONT HIGHBUILD GREY PRIMER 1144-S

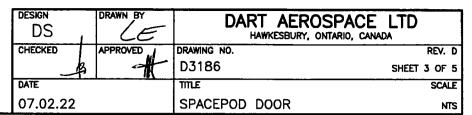
8) ALL DIMENSIONS ARE IN INCHES

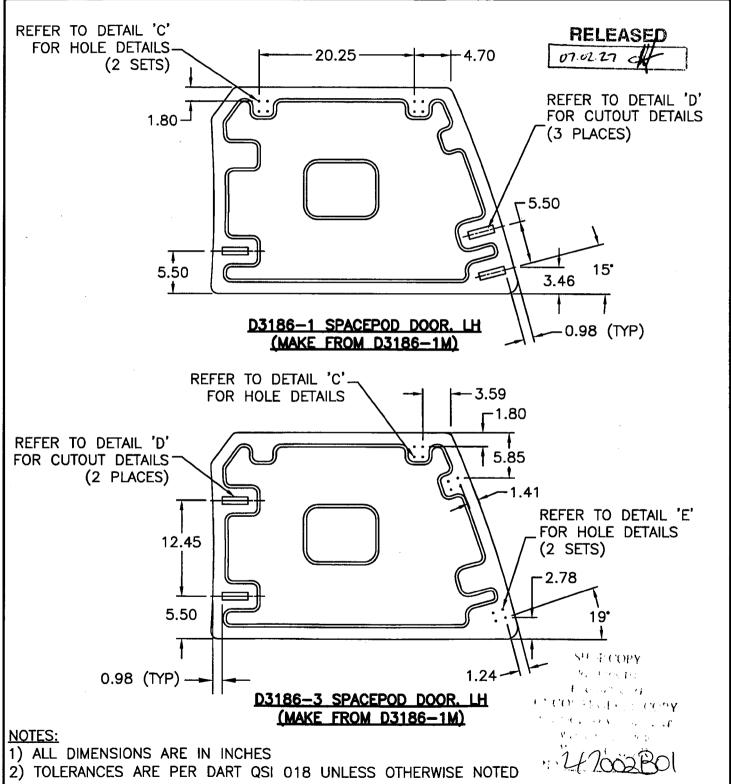
9) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



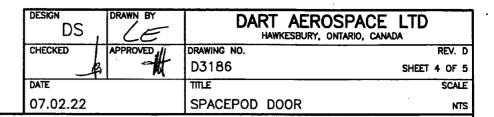


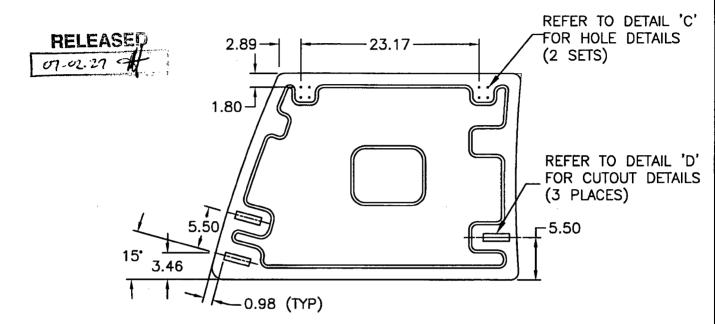


Copyright © 2003 by DART AEROSPACE LTD

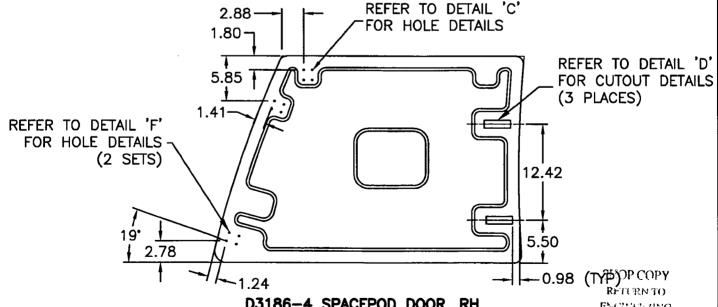
THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.







# D3186-2 SPACEPOD DOOR, RH (MAKE\_FROM\_D3186-2M)



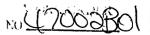
D3186-4 SPACEPOD DOOR, RH (MAKE\_FROM\_D3186-2M)

## NOTES:

- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

EMOTERATING UNCONTROLLED COPY

SUBTRICT TO ANY SEMBENT

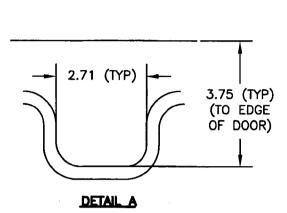


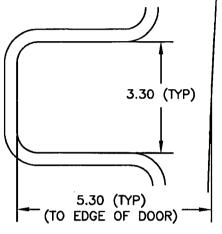
Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.



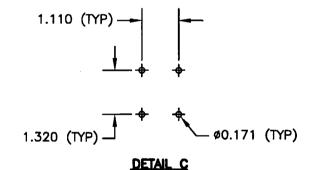
DESIGN DS	DRAWN BY	DART AERO HAWKESBURY, O	<del>-</del>
CHECKED	APPROVED.	DRAWING NO.	REV. D
1 4	3 4	D3186	SHEET 5 OF 5
DATE		TITLE	SCALE
07.02.22		SPACEPOD DOOR	NTS

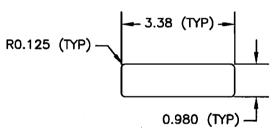




# RELEASED 07.02.27

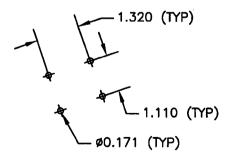
DETAIL B





NOTE: ENSURE THAT CUTOUT IS PERPENDICULAR TO EDGE OF DOOR

### DETAIL D



DETAIL E

# 1.320 (TYP) 1.110 (TYP) Ø0.171 (TYP)

SHOP COPY

DETAIL

### NOTES:

- 1) ALL DIMENSIONS ARE IN INCHES
- 2) TOLERANCES ARE PER DART QSI 018 UNLESS OTHERWISE NOTED

Copyright © 2003 by DART AEROSPACE LTD

THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.

COMPOSITES 2699, Sième Avenue

DELASTEK COMPOSITES INC. Local 14, PORTE -A-Grand-Mère, Québec G9T 5K7 Can \*\*Fax (819) 533-3494 \*\*

# **PACKING SLII**

CKIIFI	CATE OF COMPLIANCE

	Invoice #	13202
	Customer #	DART
	Que se	24-8-30-
Dart Aerospace	Ship to:	
1270, Aberdeen	Street	
Hawkesbury, On Canada	tario K6A 1K7	
-		

Telephone: (819) 533-5788

Warehouse: MAIN

Bill to: Dart Aerospace Ltd. 1270, Aberdeen Street Hawkesbury, Ontario K6A 1K7 Canada

Telephone: 613-632-5200 Contact: Linda Lacelle

Adm.

☐ Quality

☐ Ship.

Sust.

PURO (	COLLECT		F.O.B. Origin		rms		
<b>Ship date</b> 16/07/2009	Order Date	Our P	0.86 Lane	Net30	days	Claud I	esperson
A TOTAL STREET, STREET	08/04/2009		O C	er by Lavoie	Your PO#	Claude Li	essard, ext. 233
Order Oty	B.O. Oty	Current Ship.	Item #	Lavoie	PO00006531	853/	GST/PST#
1	0	1	DKC134-0060	D31862P Spacep Dwg. Rév.: D	Item De	scription 301	U de M : Ea
		,		:	No. lot	$\rightarrow$	
1	0	1	DKC124 00		43684	5, ,	<u>Qté</u> 1
.			DKC134-0069	D31882P Spacepo Dwg. D3188 Rév.: E	d Body RH B47002A	rolps	30 U de M : Eac
					No. lot 43773		Qté 1
	*					:	· · · · · · · · · · · · · · · · · · ·
eby certified led and teste	l that all mater d in accordanc	ials, proce	ess and finished item requirements of the a records are on file	s were			A

Accepted by:

Quality department

AQ-357

Client : SPACEPOD DOOR D : DART Dart Aerospace Ltd. Nom Dessin Numéro Job : 43684 Numéro Article : DKC134-0060 Numéro Soumission: 2610 Numéro Dessin : D3186 Numéro B.A. Projet Numéro : DKC134 Cette fois : 2009-02-18 No. B.V. : : D Révision dessin : NC Prsht Rev. Matériel : Fibre 7781 et Résine 411-350 Prem. fois : 2009-02-25 Type Date Dûe Qté: 1 UdM: UNITE : 43683 Job précédente Écrit par Vérifié & Approuvé par Commentaires : N° de pièce Dart Aerospace : D31862M Process Sheet Rév.: 02 Modification du planning afin d'y inclure le N° I.G 0008 ( Primer ) Produit additionnel Numéro Job: # Séq.: Machine ou Opération: Description: 1.0 AC0303 Frekote 44NC Commentair Qty.: 0.020 GALLON(s)/Unit Total: 0.020 GALLON(s) Frekote 44NC 2.0 PRÉPARATION 3 PRÉPARATION DU MATÉRIEL DART Commentair Setup: 0.00Hrs/ Ruh: 5.0000Min Total Run: 0.0833Hrs PRÉPARATION DU MOULE Faire la préparation du moule N° DT 8005 à l'aide de Frekote 44NC et laisser sécher pendant 3 heures selon le QSI-006. Heure Début: 2:57) Heure Fin: 3.0 Commentair Qty.: 3.28 VERGE(s)/Unit Total: 3.28 VERGE(s) Tissu à délaminer Release ply B 4.0 AC0407 Wrightlon 5200 Bleu P3 Commentair Qty.: 3.59 VERGE(s)/Unit Total: 3.59 VERGE(s) Wrightion 5200 Bleu P3 AC0408 Feutre de drainage N° Airweave N 10 Commentair Qty.: 3.00 VERGE(s)/Unit Total: 3.00 VERGE(s) Feutre de drainage N° Airweave N 10 6.0 AC0752 Stretchlon 200 poche à vide Vert Commentair Qty.: 3.00 VERGE(s)/Unit Total: 3.00 VERGE(s) Stretchlon 200 poche à vide Vert

Mercredi, 2009-02-18 10:52:41

tilisateur:

Marc Dubé

Feuille de Procédé

Client: DART

Dart Aerospace Ltd.

Numéro Job: 43684

Nom Dessin: SPACEPOD DOOR Numéro Article: DKC134-0060

Numéro Job:



# Séq.:

26.0

Machine ou Opération:

LAMINAGE

Description:

LAMINAGE PIÈCE DART





Commentair Setup: 0.00Hrs/ Run: 30.0000Min Total Run: 0.5000Hrs

FAIRE LE LAMINAGE DES TISSUS

Faire le liminage d'un pli de 9.7 oz.

Faire le laminage du pli de tissu de 12 oz tout le tour de la porte.

Faire le laminage du dernier pli de 9.7 oz.

Date: 25 3 Heure Début: 8:55 Heure Fin: 9:25 Sceau:





27.0

28.0





Commentair Setup: 0.00Hrs/ Run: 10.0000Min Total Run: 0.1667Hrs

EFFECTUER LA POCHE A VIDE

Faire la poche à vide en appliquant les composantes dans l'ordre suivant:

- 1- Tissu à délaminer,
- 2- Film perforé P-3,
- 3- Feutre de drainage
- 4- Sac à vide Stretchlon 200

Laisser sécher pendant 4 heures minimum.

Date: 25-3 Heure Début: 9:25 Heure Fin: 9:35 Sceau:





Curing Début: 8:55 Curing Fin: 5.00
DÉMOULAGE PIÈCE DART



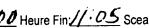


Commentair Setup: 0.00Hrs/ Run: 5.0000Min Total Run: 0.0833Hrs DÉMOULAGE DES PIECES

Démouler la pièce en faisant bien attention de ne pas abimer les coins et le " edges ".

Sabler la surface de la pièce qui était en contact avec le le moule afin d'éliminer le fini lisse de celui-ci.

Date 26 3 Heure Début: // 00 Heure Fin:// 05 Sceau:





Client	: DART [	Part Aerospace Ltd.	Feuille de Procédé	n: SPACEPOD DOOR
Cifeni Numéro Job		an Aerospace Liu.		e: DKC134-0060
méro Job:			•	
Séq.:	Machine o	u Opération:		escription :
29.0	TRIMAGE 3		TRIMAGE COMPOSITES DA	RT
Comme	TRIMA	SE DE FINITION	OMin Total Run : 0.5000Hrs	- -
			e l'aide du gabarit de trimage prévu à ce ::///30 Heure Fin://200 Sceau	
30.0	AAC0683		Dupont Primer N° 7704S	
Comme	entair Qty.: Dupont	0.1390 UNITE(s)/Un Primer N° 7704S	N° de Lot: \ - 21723-1	
31.0	AAC0685		Dupont Activator - Reducer (	Chromabase N° 7775S
Comme	entair Qty.: Dupont	0.0283 UNITE(s)/Un Activator - Reducer (	Chromabase N° 7775S	
32.0	PRIMER		APPLICATION DE PRIMER	
Comme	APPLI	CATION DE PRIMER er le primer selon I.G	thrs Total Run : 0.0000Hrs  5.0008  6:0008  6:0008	
	Quanti	1	ACT VI O	 
	Quanti	1	nte: 14/04/07 Sceau: \$\frac{\sqrt{\sq}\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sqrt{\sq}}\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}	
33.0	INSPECT		INSPECTION PIÈCE DART	
Comm		0.00Hrs/ Run: 0.0000 CTION PIÈCE DART	OMin Total Run : 0.0000Hrs	
	Inspec	•	département de la qualité te: 15.4-09 Sceau:	-
		té: Da	te: Sceau:	

Farm: 10100000

ate: Merc	redi, 2009-02-18 10:52:41		•
ilisateur: Marc	Dubé	Feuille de Procédé	
Client: Numéro Job:		d. Nom Dessin: SPACEPOD DOOR Numéro Article: DKC134-0060	
Numéro Job:			
# Séq.:	Machine ou Opération:	Description :	
34.0	EMBALLAGE	EMBALLAGE ET ENTREPOSAGE	
Comment	air Setup: 0.00Hrs/ Run: 0. EMBALLAGE ET ENTR	.0000Min Total Run : 0.0000Hrs REPOSAGE	
	Faire l'emballage des pi	(0, 6)	
	Quantité:	Date: 15-4-0 Sceau: 11)	

Sceau:

Date:\_

Quantité:\_